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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/721,474

11/25/2003

Chimsong Sul

10030034-1

6056

7590

09/19/2006

AGILENT TECHNOLOGIES, INC.  
Intellectual Property Administration  
Legal Department, DL 429  
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Loveland, CO 80537-0599

EXAMINER

TRIMMINGS, JOHN P

ART UNIT

PAPER NUMBER

2138

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/721,474

Applicant(s)

SUL ET AL.

Examiner

John P. Trimmings

Art Unit

2138

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This office action is in response to the applicant's amendment dated 8/21/2006.

The applicant has amended claims 1, 6, 13, 14, 16 and 19.

Claims 1-23 are pending.

### **Response to Amendment**

#### As per Objections to the Drawings:

1. In view of the changes to FIG. 11 and 12, and new drawing FIG. 13, the examiner withdraws the objections in the previous office action, paragraphs 1 and 3.

The examiner also approves the entry of new FIG.s 11, 12 and 13 presented in the applicant's amendment.

2. The examiner disapproves of the entry of said new FIG. 4, and maintains the objection of the previous office action in paragraph 2 because the applicant has not provided support for the features of claims 13 and 14 which were objected to because the drawings do not show the feature wherein the device under test takes test address signals directly from the tester.

#### As per Objections to the Specification:

3. The examiner disapproves of the entry of new paragraph [20] and paragraph [23] because the applicant has introduced new matter. 35 U.S.C. 132(a) states that no

amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

As per paragraph [20], the applicant's amendment to the last sentence changes the scope of the TMU 21 of FIG. 4 in regard to the characteristics of the decoded output data, and changes the scope in regard to the decoded output data as it is applied to the DUT in original claims 1, 6, 16 and 19. There is no direct support elsewhere in the original disclosure for this change to paragraph [20], therefore, the amendment is disapproved.

As per paragraph [23], there is no reference or teaching of a direct connection of the address signals between the Tester 20 and the DUT 1 in regard to FIG. 4, therefore the amendment to paragraph [23] is disapproved.

4. The examiner approves of the entry of new paragraphs [25], [27], [30], [32] and [34], and withdraws the objections to said paragraphs.

As per Objections to the Claims:

5. In view of the applicants changes to claims 1, 13 and 14, the examiner withdraws the objections to said claims.

As per Rejections to the Claims Under 35 USC 112 1<sup>st</sup> Paragraph:

6. The examiner maintains the rejections of claims 13 and 14 under 35 USC 112 1<sup>st</sup> paragraph because the applicant has not shown within the original disclosure, any

reference to, or teaching of, a direct connection of the address signals between the Tester 20 and the DUT 1 of FIG. 4.

As per Rejections to the Claims Under 35 USC 112 2nd Paragraph:

7. In view of the amendments to claims 3, 9 and 12-14, the examiner withdraws the rejections of said claims under 35 USC 112 2<sup>nd</sup> paragraph.

As per Rejections to the Claims Under 35 USC 102(e):

8. Applicant's arguments filed 8/21/2006 have been fully considered but they are not persuasive. The applicant, in the Remarks, argues that Wang has failed to teach the limitations of claim 1, but the examiner disagrees. Page 13 of the Remarks states that the claim limitation under dispute is; the Test Circuit 21 of FIG. 4 "receives encoded test channel data having M bits per channel and provides decoded test data having N bits per channel", applying the N bits on each of the outputs 23 ("each of" being the present amendment). This limitation does not mean that each output 23 is directly connected (in a dot-or manner) where each output 23 is precisely the same as the other output 23. On the contrary, the limitation, to the examiner, means that each output 23 is related to an Nth bit of data applied, as in Wang, and each output 23 is applied to a scan chain, and that each output 23 is distinct from another output 23 and is determined by the Nth data bit. The examiner refers the applicant to paragraph [20] as originally presented, to support the examiner's interpretation, wherein:

"Specifically,  $m$  bits of an output-disabled-encoded-I/O signal  $EN-I/O^*$  are fed to the TMU 21. The TMU 21 decodes the output-disabled-encoded-I/O signal  $EN-I/O^*$  into  $n$  bits of an output-disabled-decoded-I/O signal  $DE-I/O^*$ . Here,  $m < n < 2^{**}m + 1$ . The  $n$  bits of the output-disabled-decoded-I/O signal  $DE-I/O^*$  are then fed into respective scan chains within the DUT 1. In this way, each scan chain has its own unique pattern of input data defined by the corresponding  $n$ th bit of the  $DE-I/O^*$  signal."

The above quotation from paragraph [20] clearly states that the respective scan chains have separate and distinct inputs that are provided by way of the TMU 21 through  $n$  output signals. Therefore, the examiner's reading of the claim in view of the disclosure supports the present rejections of claims 1, 6, 16 and 19 as outlined in the previous office action, and so the claims are maintained as being rejected. Consequently, in view of their dependence, dependent claims 2-5, 7-15, 17-18 and 20-23 are also maintained as being rejected.

### ***Objections to Drawings (New)***

9. The amendment to FIG. 4, submitted by the applicant in response to the objection in the previous office action, paragraph 2, is objected to because it introduces new matter. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: There is no reference to or teaching of a direct connection of the address signals between the Tester 20 and the DUT 1 of new FIG. 4.

Applicant is required to cancel the new matter of this drawing in the reply to this Office Action.

***Objections to Specification (New)***

10. The examiner objects to new paragraph [20] and new paragraph [23] because the applicant has introduced new matter. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

As per paragraph [20], the applicant's amendment to the last sentence changes the scope of the TMU 21 of FIG. 4 in regard to the characteristics of the decoded output data, and changes the scope in regard to the decoded output data as it is applied to the DUT in original claims 1, 6, 16 and 19. There is no direct support elsewhere in the original disclosure for this change to paragraph [20], therefore, the paragraph is objected to.

As per paragraph [23], there is no reference or teaching of a direct connection of the address signals between the Tester 20 and the DUT 1 in regard to FIG. 4, therefore the new paragraph [23] is objected to.

***Claim Rejections - 35 USC § 112 (New)***

11. The amended claims 1, 6, 16 and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter, which was not described in the specification in such a way as to

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reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. In regard to the original disclosure, there is no reference to, or teaching of, applying the decoded test data bits to each of the decoded outputs.

### ***Conclusion***

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Trimmings whose telephone number is (571) 272-3830. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 6:00 PM.




If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
John P Trimmings  
Examiner  
Art Unit 2138

jpt

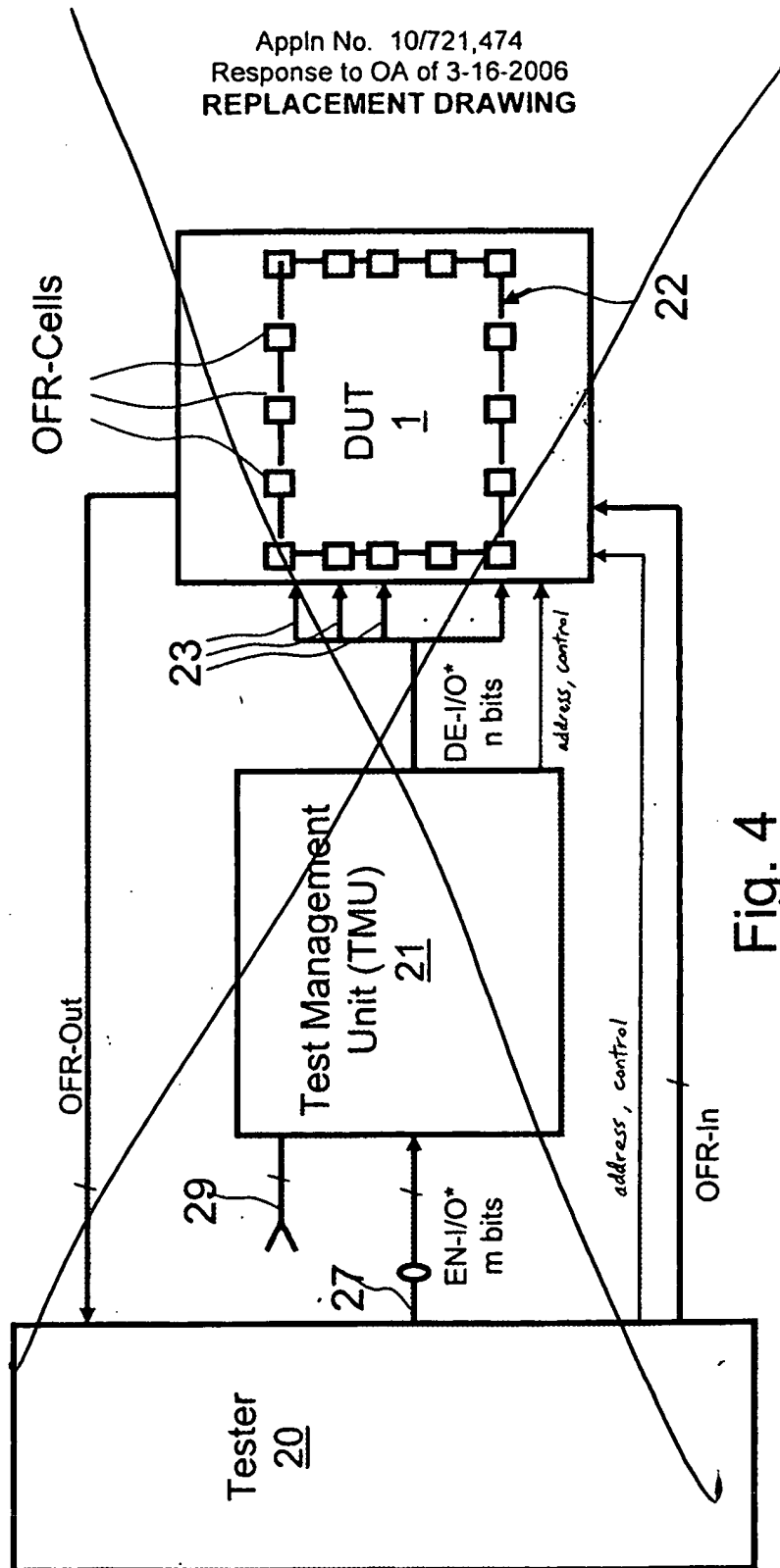
  
**GUY LAMARRE**  
**PRIMARY EXAMINER**



*Entry not approved 9/6/06 TJS*

Appln No. 10/721,474  
Response to OA of 3-16-2006  
**REPLACEMENT DRAWING**

400



**Fig. 4**

Entry approved. 9/6/06 *PA*

Appl No. 10/721,474  
Response to OA of 3-16-2006  
**REPLACEMENT DRAWING**

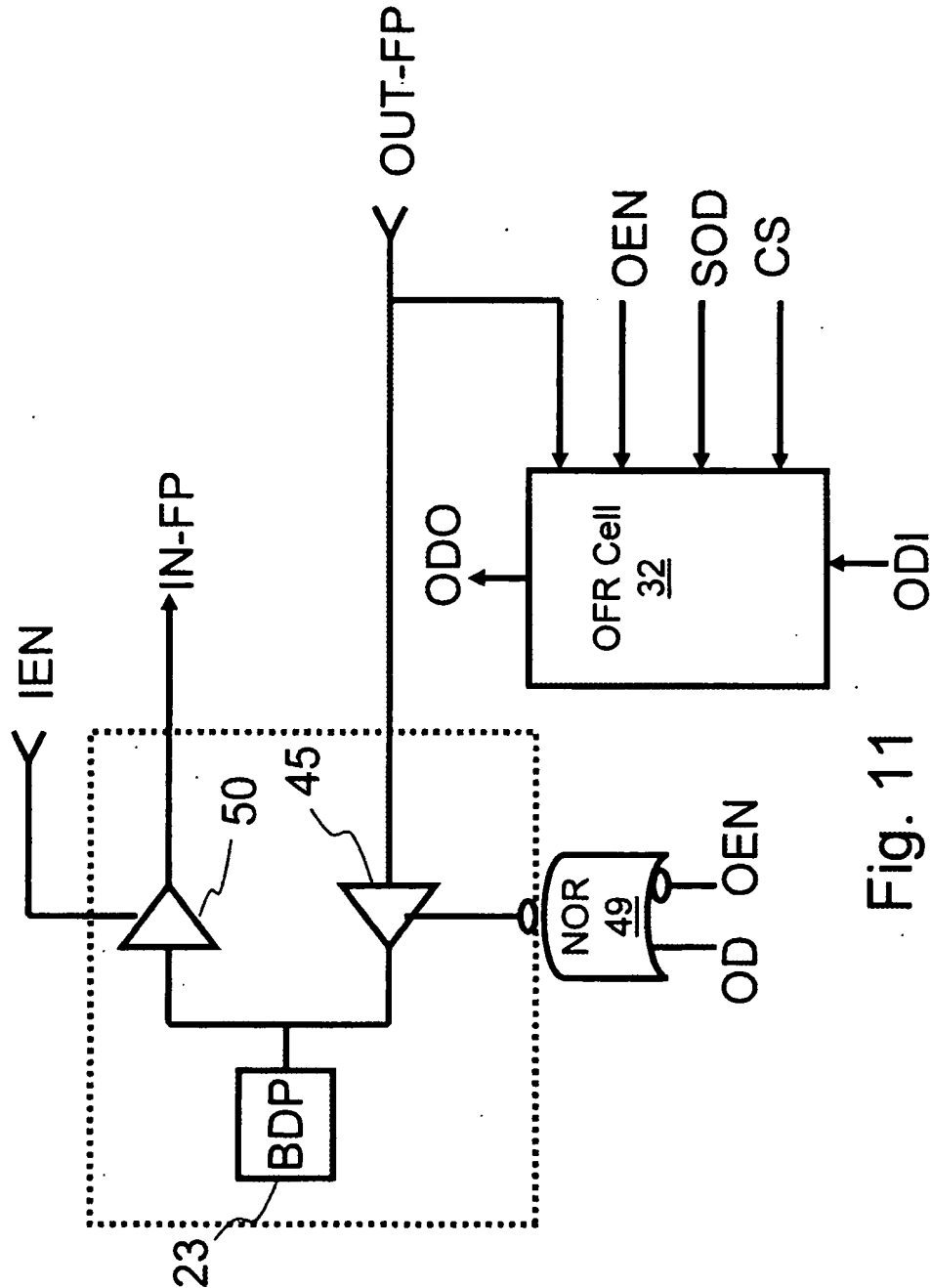


Fig. 11

Entry approved. 9/6/06 *mt*

Appln No. 10/721,474  
Response to OA of 3-16-2006  
REPLACEMENT DRAWING

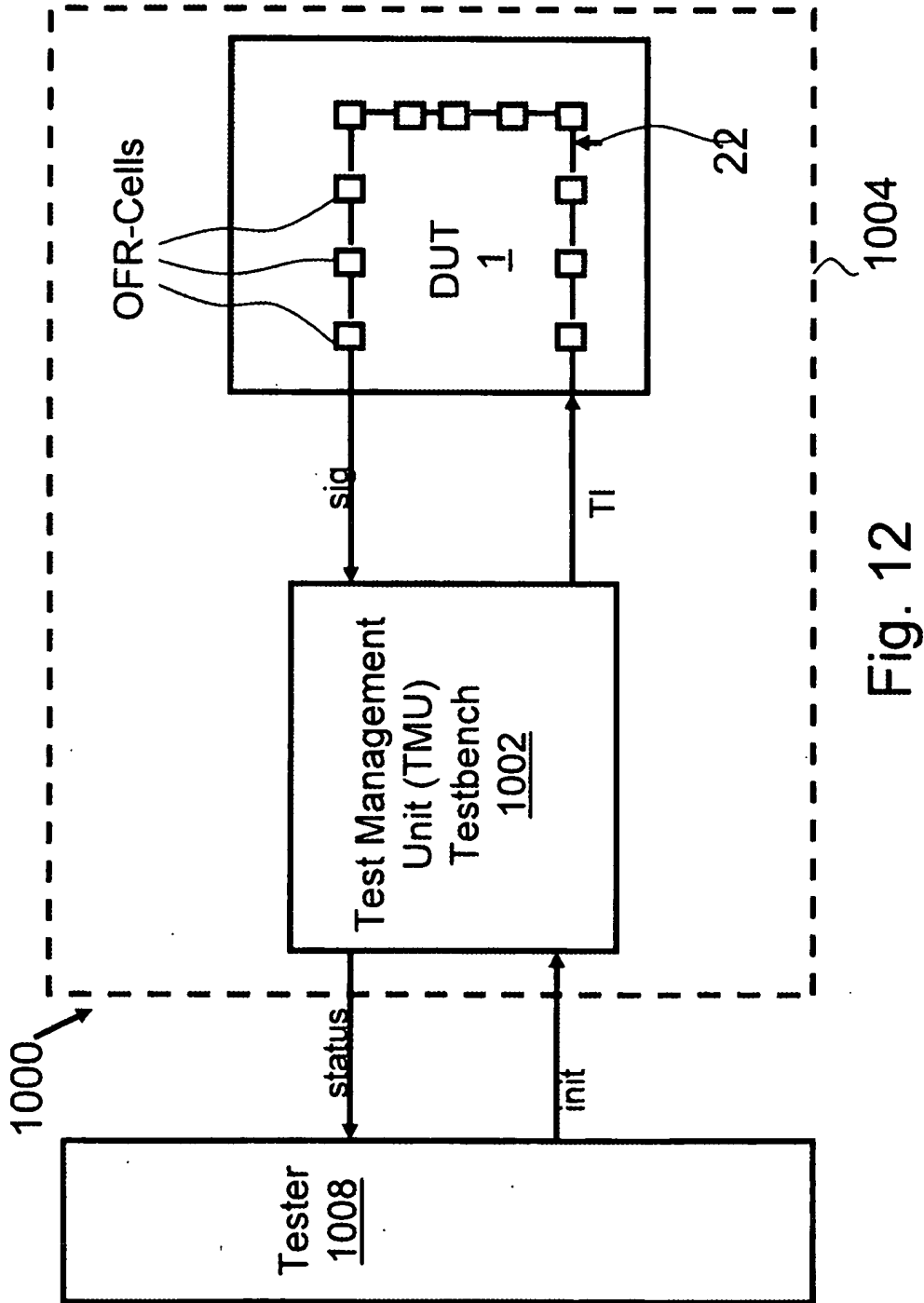


Fig. 12

Entry approved, 9/6/06 MJ

Appln No. 10/721,474  
Response to OA of 3-16-2006  
NEW DRAWING

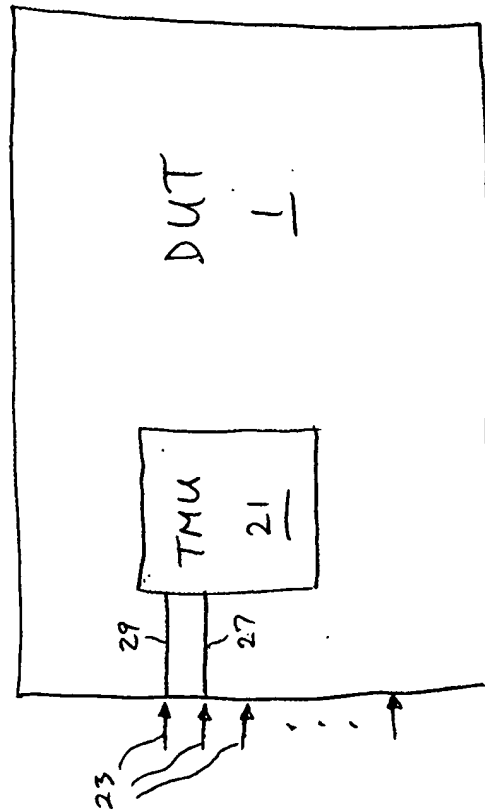


FIG. 13